



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,832	09/11/2003	Dennis R. Esterberg	10006017-4	5946

7590

11/02/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

PEYTON, TAMMARA R

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,832

Applicant(s)

ESTERBERG ET AL.

Examiner

Tammara R Peyton

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6 and 8-33 is/are rejected.
- 7) ☒ Claim(s) 2, 3 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, 6, 8-11, and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Yanagisawa et al.*, (US 5,805,412).

1. As per claims 1 and 14, *Yanagisawa* teaches a system, comprising:
 - a mobile computing device (notebook computer, 100, Fig. 1) having one or more components (Fig.13) each configured to perform a function in response to an input from an associated external device (devices connected to the notebook computer's associated port(s));
 - an input/output module (First docking unit, 200, Fig. 1, 4, 5 or combined First/Second docking unit, 300, Fig. 7) configured for installation within a housing inset of a housing of the mobile computing device, the input/output module configured to interlock within the housing (Figs. 4, 11, and 12) inset to facilitate portability of the mobile computing device with the input/output module installed, the input/output module including one or

Art Unit: 2182

more input/output connectors (222, 231, 232, 233, 234, 235, 236, Fig.5 of First docking unit, 200) configured to interface one or more associated external devices (devices connected to the notebook computer's input/output connector port(s)) with the one or more components (notebook computer port signal lines, 25a, 25b, 25,c, 26a, 26b, 27a, 27b, Fig.13) in the mobile computing device; wherein the input/output module (First docking unit, 200, Fig. 1, 4, 5, 13) is configured to pass one or more unmodified signals between the one or more components and the one or more associated external devices.

2. *Yanagisawa* does not expressly disclose wherein the input/output module (First docking unit, 200, Fig. 1, 4, 5, 13) is configured to pass one or more unmodified signals between the one or more components (Fig.13) and the one or more associated external devices. Nonetheless, the input/output connectors (shown in Fig. 13, 231-260e, 232-260g, 233-260h, 234-260h, 235-260i, 236-260j) each have dedicated signal lines represented as 260e-260j. Raw port signal(s) are generated from the input/output connectors (260e-260j) and transmitted to a signal line bundle, 260. The input/output module transmits the raw port signal (s) through signal line bundle, 260 to the notebook docking connector, 130. The raw port signal (s) are then branched to corresponding port signal lines (25a, 25b, 25,c, 26a, 26b, 27a, 27b, Fig.13). Referring to Fig. 13, Examiner is taking the position that the raw port signals generated from input/output connectors (shown in Fig. 13, 231-260e, 232-260g, 233-260h, 234-260h, 235-260i, 236-260j) are

Art Unit: 2182

simply passed through the input/output module to the notebook connector, 130 unmodified or not altered by the input/output module in any way. (Abstract, col. 5, lines 8-56, col. 8, lines 14-30, col. 13, lines 19-col. 14, lines 1-31)

3. As per claim 4, *Yanagisawa* teaches a system wherein:

- the input/output module (First docking unit, 200, Fig. 1, 4, 5/Second docking unit, Fig. 2) has multiple input/output connectors each configured to interface an external device with the computing device, wherein the input/output modules is configured to pass at least one input from an external device unmodified to a component in the mobile computing device; and
- the input/output module has signal processing component to process an input from an external device, wherein the input/output module is configured to pass at least one processed input from the input/output module to the computing device.

4. *Yanagisawa* teaches a combined input/output module comprising of First docking unit, 200 and Second docking unit, 300. In one embodiment, the input/output module is comprises the First docking unit. In another embodiment, the input/output module comprises the First docking unit coupled to the Second docking unit. Signals received from the input/output connectors related to the First docking unit are passed to the notebook computer unmodified. However,

Art Unit: 2182

signals received from the input/output connectors related to the Second docking unit, specifically the signal from connector 324, are first processed and then passed to the notebook computer. A SCSI controller 364, performs protocol conversion on the received signal before passing the signal to the notebook computer. (col. 5, lines 47-col. 6, lines 1-26, 57-col. 7, lines 1-3, col. 15, lines 24-26)

5. As per claims 5 and 6, *Yanagisawa* teaches wherein the input/module comprising a parallel input/output connector and a serial input/output connector. Claims 5 and 6 are presented in alternative language requiring one "or" the other be found not necessarily all. Therefore, Examiner is taking the position that *Yanagisawa* teaches a input/output module comprising at least one or more of the listed connectors.

6. As per claims 8 and 9, *Yanagisawa* does not expressly teach of reserving system resources, nonetheless, a mobile computer device configured to reserve system resources if a input/output connector does not have an associated external device connected is well known in the art, therefore, making use of the system obvious.

7. As per claim 10, it would have been obvious to one of ordinary skill that *Yanagisawa's* input/output module is configured to inform the mobile computer device of whether devices are connected to the input/output connector as it

Art Unit: 2182

relates to the input/output connector configuration on the input/output module.

(Fig.13)

8. As per claim 11, *Yanagisawa* teaches wherein the input/output module (First/Second docking unit, 300, Fig. 7) comprises a memory storage device (380, col. 14, lines 54-58) to store the related input/output connectors' configurations and informing the mobile computing device of the configurations.

9. As per claim 13, *Yanagisawa* teaches wherein the input/output module does not expressly teach of de-allocating system resources, nonetheless, a computer device configured to reserve system resources if a input/output connector does not have an associated external device connected is well known in the art, therefore, making use of the system obvious.

10. As per claim 15, *Yanagisawa* teaches wherein the module housing is configured to be removably attached to the computer.

11. As per claim 16, *Yanagisawa* another embodiment wherein the input/output module comprising of the First docking unit coupled to the Second docking unit. Signals received from the input/output connectors related to the First docking unit are passed to the notebook computer unmodified. However, signals received from the input/output connectors related to the Second docking unit, specifically the signal from connector 324, are first processed and then

Art Unit: 2182

passed to the notebook computer. A SCSI controller 364, performs protocol conversion on the received signal before passing the signal to the notebook computer. (col. 5, lines 47-col. 6, lines 1-26, 57-col. 7, lines 1-3, col. 15, lines 24-26)

12. As per claim 17, *Yanagisawa* teaches wherein the input/module comprising a parallel input/output connector and a serial input/output connector.

13. As per claim 18, *Yanagisawa* teaches wherein the input/module comprising a parallel input/output connector and a serial input/output connector. Claim 18 is presented in alternative language requiring one "or" the other be found not necessarily all. Therefore, Examiner is taking the position that *Yanagisawa* teaches an input/output module comprising at least one or more of the listed connectors.

14. As per claim 19, it would have been obvious to one of ordinary skill that *Yanagisawa's* input/output module is configured to inform the computer device of whether devices are connected to the input/output connector as it relates to the input/output connector configuration on the input/output module. (Fig.13)

15. As per claim 20, *Yanagisawa* teaches wherein the input/output module (First/Second docking unit, 300, Fig. 7) comprises a memory storage device

Art Unit: 2182

(380, col. 14, lines 54-58) to store the related input/output connectors' configurations and informing the computing device of the configurations.

Claims 1, 12, 14, and 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kambayashi et al.*, (US 6,724,615).

16. As per claims 1 and 14, *Kambayashi* teaches a system, comprising:
- a mobile computing device (notebook computer, 1, Fig. 2b) having one or more components (Fig.a3) each configured to perform a function in response to an input from an associated external device (devices connected to the notebook computer's associated port(s));
 - an input/output module (connector docking unit, 53, Fig. 2b, 3a-3c) configured for installation within a housing inset of a housing of the mobile computing device, the input/output module configured to interlock within the housing inset to facilitate portability of the mobile computing device with the input/output module installed, the input/output module including one or more input/output connectors (Fig. 3a) configured to interface one or more associated external devices (devices connected to the notebook computer's input/output connector port(s)) with the one or more components (notebook computer port signal lines, Fig.3b) in the mobile computing device; wherein the input/output module (connector docking unit, 53) is configured to pass one or more unmodified signals between

the one or more components and the one or more associated external devices.

17. *Kambayashi* does not expressly disclose wherein the input/output module is configured to pass one or more unmodified signals between the one or more components and the one or more associated external devices. Nonetheless, *Kambayashi's* input/output connectors are configured to pass one unmodified signals between one or more components via a dedicated signal line connector. Examiner is taking the position that port signals generated from input/output connectors (Fig. 3a) are simply passed through the input/output module to the dedicated signal line connector to the notebook connector 51 unmodified or not altered by the input/output module in any way. (Abstract, col. 1, lines 38- col. 2, lines 1-38, and cols. 3-6)

18. As per claims 12, 21, 22, 23, and 30-33, *Kambayashi* teaches a method, comprising:

- providing an input/output module configured for installation within a housing of a computer that contains multiple components each of which interface with different external devices, the input/output module including a module connector having a pin configuration (55, Fig. 2b) that can be decoded by the mobile computer to determine an input/output connector configuration on the input/output module;

Art Unit: 2182

- providing multiple different input/output connectors supported by the input/output module, at least some of the input/output connectors being configured to establish a connection between an external device and an associated component in the mobile computer (notebook computer) and pass signals in an unmodified form between the external device and its associated component. (notebook computer port signal lines, Abstract, col. 1, lines 38- col. 2, lines 1-38, and cols. 3-6)

19. As per claims 24 and 25, *Kambayashi* teaches wherein the input/module comprising a parallel input/output connector and a serial input/output connector. Claims 24 and 25 are presented in alternative language requiring one "or" the other be found not necessarily all. Therefore, Examiner is taking the position that *Kambayashi* teaches an input/output module comprising at least one or more of the listed connectors.

20. As per claim 27, *Kambayashi* a method further comprising:
of receiving a second input from a second external device (connected to one of the connectors) with a second input/output connector on the interchangeable input/output module;
processing the second input with a signal processing component in the interchangeable input/output module to form a processed input; and
passing the processed input from the signal processing component in the input/output module to a component in the mobile computing device.

21. As per claim 28, *Kambayashi* teaches further comprising communicating an input/output connector configuration on the interchangeable input/output module to the mobile computing device.

22. As per claim 29, *Kambayashi* does not expressly teach of reserving system resources, nonetheless, a mobile computer device configured to reserve system resources if a input/output connector does not have an associated external device connected is well known in the art, therefore, making use of the system obvious.

Allowable Subject Matter

Claims 2, 3, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Applicant's Arguments

Applicant's Attorney argues that *Yanagisawa* does not teach "an input/output module configured for installation within a housing of the mobile computing device" (pg. 13, lines 10-11) Examiner respectfully disagrees with Applicant's Attorney. Examiner believes that the claim language "installation

Art Unit: 2182

within a housing of the mobile computing device” and “within a housing inset of a housing of the mobile computing device” translates to *Yanagisawa’s* input/output module (docking station) being connected/attached/installed into the housing mobile computing device (notebook computer). Specifically, *Yanagisawa’s* input/output module has male connectors that ‘interlock’ with the female connector of the housing of the notebook computer. The notebook computer has female rear ports that allow the input/output module’s male adapters to be ‘interlocked’ with the female rear port housing of notebook computer. Examiner is taking the position that the rear port of the notebook computer is part of the overall ‘housing inset’ of the notebook computer, and the input/output module configured for ‘installation/interconnect/interlock’ to the notebook computer’s overall housing. Furthermore, *Kambayashi’s* connector docking unit (53) also has a male connector with ‘interlocks’ with the female connector of the notebook wherein the female rear port of the notebook computer is part of the overall ‘housing inset’ of the notebook computer that ‘interlock’ with *Kambayashi’s* connector docking unit.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571) 272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Popovici Dov can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Mailed responses to this action should be sent to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231.

Faxes for Official/formal (After Final) communications or for informal or draft communications (please label "PROPOSED" or "DRAFT") sent to:

Art Unit: 2182

(571) 273-8300

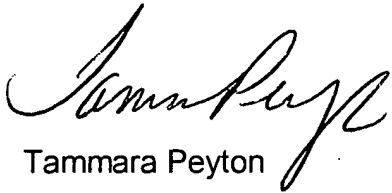
Hand-delivered responses should be brought to:

USTPO, Randolph Building, Customer Service Window

401 Dulany Street

Alexandria, VA 22314.

TAMMARA PEYTON
PRIMARY EXAMINER

A handwritten signature in cursive script, appearing to read "Tammara Peyton".

Tammara Peyton

October 15, 2005